

VPATTM

Voluntary Product Accessibility Template®

remarks and explanations regarding the product.

Supports with Limitations

Version 1.3

Date: May 20, 2010

Name of Products: Models MX-M550, MX-M620, and MX-M700 Series

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The purpose of the Voluntary Product Accessibility Template, or VPAT[™], is to assist

Federal contracting officials and other buyers in making preliminary assessments regarding the availability of commercial "Electronic and Information Technology" products and services with features that support accessibility. It is assumed and



Sharp MX-M550 Series Sharp MX-M620 Series Sharp MX-M700 Series

Compliant with minor exceptions

recommended that offerers will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, e.g., "equivalent facilitation." The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered

paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional

Summary Table **VPAT**TM Voluntary Product Accessibility Template® **Supporting Features** Criteria Remarks and explanations Software Applications and Operating Systems Section 1194.21 Supports Section 1194.22 **Supports with Limitations** Web-based Internet Information and Applications Not applicable **Telecommunications Products** Section 1194.23 Section 1194.24 Not applicable Video and Multi-media Products Section 1194.25 Supports with Limitations Self-Contained, Closed Products Section 1194.26 Not applicable **Desktop and Portable Computers** Section 1194.31 Supports with Limitations **Functional Performance Criteria**

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Section 1194.41

Information, Documentation and Support

Section 1194.21 Software Applications and Operating Systems – Detail

Supporting Features	Remarks and explanations	
	Regarding Sharp imaging (one of the functions of Sharpdesk® document management software), some mouse commands do not have a corresponding keyboard command. (ex. range specification of image data). Regarding PAU5 almost all buttons and links can	
Supports	be focused using the tab key and selected using the space key or the enter key. And almost all results can be discerned textually.	
	All buttons and links can be focused using keyboard in PRINTER DRIVER/ Printer Status Monitor.	
	*Note that PAU5 is a Web application and thus the details of behavior of the UIs ultimately depend on the browser. (The same goes for the other items.)	
,	Sharpdesk software runs on Microsoft™ OS and utilities.	
Supports	PRINTER DRIVER/ Printer Status Monitor are not designed to disrupt or disable other functions by design.	
mented by the s available to	PAU5 is not designed to disrupt or disable other functions by design.	
	If the focus changes, the target will change in some ways. Ex. the frame color will change if a thumbnail is focused. The text will be bold if focused.	
Supports with Limitations	If the focus changes, the target will change in some ways. Ex. the frame line will change if an icon button is focused.	
	Regarding PAU5 in all cases, the location of the focus is clearly indicated on the screen.	
	Supports Supports Supports	

Criteria	Supporting Features	Remarks and explanations
(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	When Sharpdesk software displays image data, text describing the image is also displayed (ex. thumbnails are labeled with the name of each file in Desktop). The information conveyed by the image can be available in text in Printer Driver. The information conveyed by icon of printer condition can be available in Printer Driver. But, the information conveyed by mimic image of MFP cannot be available in text in Printer Status Monitor. Regarding PAU5 almost all images have an alt attribute and display alternative text which is specified as a substitute for an image. *Note that some browsers don't display the alternative text.
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supports	If an icon, an indicator and an element have the same image, each of them has the same meaning in Sharpdesk software. When an icon, an indicator and an element have the same image, each of them has the same meaning in PRINTER DRIVER/ Printer Status Monitor. Almost all images have the same meaning consistently.
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supports	Sharpdesk software displays text contents using functions of the OS. PRINTER DRIVER/ Printer Status Monitor displays text contents using functions of the OS. Regarding PAU5 text is displayed by using the text display function of the browser. It is assumed that the browser displays it by using OS's text display function.

Criteria	Supporting Features	Remarks and explanations
		Sharpdesk software doesn't override the said selections and attributes.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	PRINTER DRIVER/ Printer Status Monitor don't override the said selections and attributes
		PAU5 doesn't disable the screen zoom function of the browser. However, font size setting made by users for the browser is invalid.
		Sharpdesk software doesn't have animations.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation	Supports	PRINTER DRIVER/ Printer Status Monitor don't have animations.
mode at the option of the user.	Сирропо	Regarding PAU5 a "searching" screen appearing when the search of a device is in progress is displayed as an animation. But selection from a still image or an animation is not available.
	Supports	Color coding is not the only means in Sharpdesk software.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.		PRINTER DRIVER/ Printer Status Monitor doesn't have the information conveying function which use color coding as the only means.
		PAU5 doesn't have the information conveying function which use color coding as the only means.
	Supports	In Sharpdesk document management software (Sharp imaging) users can select a color from variety of color selections.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.		PRINTER DRIVER/ Printer Status Monitor doesn't have adjust color and contrast setting Function.
		Regarding PAU5 although color setting is available, contrast setting is not.
	Supports	Sharpdesk software doesn't flash or blink text contents.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater		PRINTER DRIVER/ Printer Status Monitor are not designed to flash or blink.
than 2 Hz and lower than 55 Hz.		PAU5 is not designed to flash or blink.

(I) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.		Sharpdesk software, PRINTER DRIVER/ Printer Status Monitor, and PAU5 doesn't use electronic forms.
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Section 1194.22 Web-based Internet information and applications – Detail $\ensuremath{\mathsf{VPAT^{\mathsf{TM}}}}$

Criteria	Supporting Features	Remarks and explanations
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Support	For every non-text element, text for screen readers is provided.
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.		No multimedia presentations (video/speech and sound) are used.
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Support	The web pages are designed so that all information conveyed with color is also available without color.
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Support	The documents are organized so that their contents are readable without requiring an associated style sheet.
(e) Redundant text links shall be provided for each active region of a server-side image map.		No image maps are used.
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.		No image maps are used.
(g) Row and column headers shall be identified for data tables.	Support	Column headers have different tags from cells so that column headers can be distinguishable. No row headers are used.
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.		No data tables that have two or more logical levels of row or column headers are used.
(i) Frames shall be titled with text that facilitates frame identification and navigation		No frames are used.
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.		No videos are used.
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.		The web pages comply with the provisions of this part.
(I) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Support	The web pages utilizing scripting languages also provide functional text that can be read by Assistive Technology.

(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).		No applets, plug-ins and other applications are needed to interpret the web page contents.
(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.		Using Assistive Technology, all field elements and functionality required for completion and submission of the electronic forms are accessible.
(o) A method shall be provided that permits users to skip repetitive navigation links.	Support	The user interfaces are designed to allow users to easily skip the repetitive navigation links.
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.		No user interfaces that require a timed response from users are provided.

Note to 1194.22: The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

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Section 1194.23 Telecommunications Products – Detail VPAT™

Criteria	Supporting Features	Remarks and explanations
(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.	Not Applicable	
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Not Applicable	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not Applicable	
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.	Not Applicable	
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.	Not Applicable	

Criteria	Supporting Features	Remarks and explanations
(f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.	Not Applicable	
(g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.	Not Applicable	
(h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.	Not Applicable	
(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.	Not Applicable	
(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.	Not Applicable	
(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.	Not Applicable	
(k)(3) Products which have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.	Not Applicable	
(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.	Not Applicable	

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Section 1194.24 Video and Multi-media Products – Detail VPAT™

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Criteria	Supporting Features	Remarks and explanations
a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	Not Applicable	
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not Applicable	
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	Not Applicable	
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	Not Applicable	
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Not Applicable	

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Section 1194.25 Self-Contained, Closed Products – Detail

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Criteria	Supporting Features	Remarks and explanations
(a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.	Limited Support	Current Technology provides no equivalent to touch-screen display panels. However, note the following: [For Whole System] (1) Provided end-users with measures to operate step by step when there are four or more operation settings. [For Operation Panel] (2) Assembled key layout based on the information flow. (3) Grouped by shape, size, and color, categorized function by function. (4) Provided measures to emit a beeping sound from base point for the operations requiring end-users to switch plural options (including set values and setting modes) in a routine rotation. (5) Enable adjusting the time for key reception. [For System Operation Function] (6) Assistive Technology for people with disabilities is not required to use the product. (Personal headsets are not Assistive Technology.)
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Supports with Limitations	[For System Operation Function] Though there is no function to notice end-users timeout in advance, end-user can adjust it to have enough time before timeout. Also timeout function can be stopped if necessary.
(c) Where a product utilizes touchscreens or contact- sensitive controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4). k) Products which have mechanically operated controls or keys, shall comply with the following:	Supports	The product utilizes touch screen without alternative methods.

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Criteria	Supporting Features	Remarks and explanations
- Ontona	Cupporting Fourtiero	[For Operation Panel]
k-(1) Controls and keys shall be tactilely discernible without activating the controls or keys.	Supports	(1) Major keys are recognized not only with vision but also with others. (2) Frequent used keys are aligned to be recognized easily and different shape and color are used so as to be distinguished easier.
		[For Whole System]
k-(2) Controls and keys shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2 N) maximum.	Supports	(1) The force required to activate controls and keys is 22.2N or lower. (2) Controls and keys can be operated with one hand and do not require tight grasping, or twisting of the wrist. [For Input through key, touch panel] (3) Upper side of the button are concave for good fitness with finger. [For Operation Panel] (4)Light touch on the Panel does not activate input. (25g-250g)
k-(3) If key repeat is supported, the controls, an input method shall be delay before repeat shall be adjustable.		Not applicable
k-(4) The status of all locking or toggle controls or keys shall be visually discernible, and discernable through touch or sound.	Supports	Power Key is discernible through touch.
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not Applicable	There are no biometric forms of user identification.
(e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.	Not Applicable	There is no auditory output.

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Criteria	Supporting Features	Remarks and explanations
(f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.	Not Applicable	There is no voice output in a public area.
(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Not Applicable	There is no color touch panel.
(h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.	Not Applicable	There is no color display.
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Supports	Applicable
(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.	Supports	Applicable
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor. (j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than	Supports	Applicable Operable control is 6 inches behind the reference plane. The height is 45 inches above the floor.
10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor. (j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.		Platen cover also meets with requirement in (j)-2 because it can be stopped at any position.

Section 1194.26 Desktop and Portable Computers – Detail VPAT™

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Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Not Applicable	
(b) If a product utilizes touchscreens or touch- operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Not Applicable	
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not Applicable	
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	Not Applicable	

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Section 1194.31 Functional Performance Criteria – Detail

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Criteria	Supporting Features	Remarks and explanations
a) At least one mode of operation and information etrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Limited Support	Current Technology provides no equivalent to touch-screen display panels. However, note the following: [For Operation Panel] (1) Major keys can be recognized not only with vision but also with others. (2) Light touch on keys does not activate input. All keys activate input by force 25g-250g. (3) When input is determined or invalid, operation status is confirmed by a beeping sound. (4) When similar shape of operation parts is aligned in a row, standard operation portion is read by something such as vision and touch. (5) 10 keys are aligned the same as telephone keys including # and *keys, on top of that, key 5 with a dot. (6) Frequent used keys are aligned to be recognized easily, and different shape and color are used so as to be distinguished easier. [For Draft setting on Platen] (7) Setting documents on the tray can be done even without relying on visibility because setting portion has a stopper. [For Paper Setting] (8) The tray operation can be recognized by touch, and enabled end-users to open and close tray and set paper with one hand. (9) When it closes, the user can grasp it with the sense of touch or the sense of hearing. [For Automatic Document Feeder] (10) Allow users to understand the location for setting the document.

		[For Appearance]
		(11) Operation area for door etc. can be recognized by touch.
		[For System Operation]
		(12) When user presses unauthorized key, a beeping sound should go off to prevent unintentional operation.
		[For Power Switch]
		(13) Power On/Off status should be recognized by touch.
		(14) Power Switch should be recognized by touch.
		(15) Locate it away from other key so as not to be pressed mistakenly.
Criteria	Supporting Features	Remarks and explanations
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supports	[For Operation Panel] (1) Letter size is min. 4 mm and usual letter size is be 4.5mm or larger. (2) The size for Key top letters including 10 key numbers, START, CA are 6.5mm or larger. (3) Difference in color lightness is 4 or more. (4) Background color is dark and letter is light. (5) Following Color combination is avoided: White-Yellow, Black-Blue, Green-Blue, Black-Green, and Red in White. (6) Common to (1)-(15) in the above 31(a).
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	Not Applicable	All operations do not require user hearing.
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Not Applicable	There is no audio information
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Not Applicable	There is no function to require user speech.

	[For Automatic Document Feeder]
	(1) Allows end-users to close it with one hand easily from the maximum open/close angle.
	(2) Door etc. can be opened/closed with one hand.
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	(3) When end-user presses unauthorized key, a beeping sound should go off to prevent unintentional operation.
	(4) Enable adjusting the time for key reception.
	[For Whole System]
	(5) All operations can be done with one hand and do not require tight grasping, or twisting of the wrist.

Section 1194.41 Information, Documentation and Support – Detail VPAT™

Voluntary Product Accessibility Template®

Criteria	Supporting Features	Remarks and explanations
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Supports	Paper and PDF
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Supports	Paper and PDF
(c) Support services for products shall accommodate the communication needs of endusers with disabilities.	Supports	Paper and PDF Compatible telephone support Online (HTML, PDF), Supports Screen Readers Additionally, MY Sharp which provides text, sound, and images

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